### **Section I: Introduction**

The Cranston-Gonzalez National Affordable Housing Act (NAHA), enacted in 1990, mandated that the Federal Housing Administration's (FHA's) Mutual Mortgage Insurance (MMI) Fund maintain a capital ratio of 2.00 percent starting from October 1, 2000. As defined by NAHA, the definition of the capital ratio is the ratio of the Fund's capital or economic net worth to its unamortized insurance-in-force (IIF). NAHA also established the requirement for the MMI fund to undergo an annual independent actuarial review.

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The purpose of the annual actuarial review is to assess the actuarial soundness of the Fund, and the review for FY 2005 is reported in this document. The analysis estimated the economic value of the MMI Fund as well as the capital ratio to see if the Fund has met the capital standards set forth in NAHA. The analysis was based on the information provided by HUD, such as historical performance of the existing MMI Fund loans, projected future economic conditions, loss-given-claim rates, and projected mortgage originations.

# A. Implementation of NAHA

Following the issuance of the fiscal year (FY) 1989 Actuarial Review and the ensuing debate, Congress mandated various changes to the MMI Fund as part of the 1990 Cranston-Gonzalez Act. The required revisions to the MMI Fund focused on four major issues: 1) the development of an actuarial standard of financial soundness, 2) modification of minimum equity requirements, 3) changes in the pricing of insurance premiums, and 4) revisions to policies regarding distributive shares.

The provisions of NAHA regarding the MMI Fund have had a significant impact on the performance of the current and future books of business. The changes called for in the Act were specifically designed to remedy the past financial difficulties encountered by the Fund. Each change was intended to either reduce the risks inherent in the additional books of business or to adjust premiums to more adequately compensate for these risks.

The NAHA legislation required that the Fund be operated on an actuarially sound basis by providing specific capital standards for the Fund and timeframes in which these standards should be met. It also defined the actuarial standard as a ratio of the Fund's capital or economic net worth to its unamortized insurance-in-force.

To further strengthen the capital position of the Fund, the NAHA legislation linked FHA's ability to pay distributive shares to the actuarial soundness of the entire MMI Fund (as defined in the legislation) rather than solely considering the performance of the loans endorsed during a particular year as was done in the past. This amendment sought to ensure that distributive share payments would not be made if the Fund did not achieve the capital standards established by the

legislation. In all our estimates of Fund performance, we have assumed that no distributive shares will be paid. We made this assumption because it is the current FHA policy.

## **B. FHA Policy Developments and Underwriting Changes**

During the past ten years, FHA implemented several policy changes. Some of the major changes include revised underwriting guidelines and other policy issues, underwriting adjustable rate mortgages and homeownership counseling, usage of an automated underwriting system, reduction of upfront mortgage insurance premium and related changes, and increases in FHA single-family maximum mortgage limits. Each of these developments is summarized below.

## 1. Revised Underwriting Guidelines and Other Policy Issues

In 1995, FHA undertook several changes in the underwriting guidelines and policy issues. The purpose of the revisions was to eliminate unnecessary barriers to homeownership, provide the flexibility to underwrite creditworthy non-traditional and underserved borrowers, and clarify certain underwriting requirements so that they are not applied in a discriminatory manner. Some of the changes were as follows:

- Instead of using the last five years to determine the borrower's income stability, the revised policy required that income be expected to continue for the first three years of the mortgage for it to be used in qualifying the borrower.
- Overtime and/or bonus income received less than two years is acceptable where the lender determines that there are reasonable prospects of its continuance.
- The recognition of part-time income, where part-time income refers to jobs taken in addition to the normal, regular employment to supplement the borrower's income. The lender must determine that the continuance of this income is reliable and provide a strong explanation for including such income as effective income in qualifying the borrower.
- FHA requires only debts extending ten or more months to be included in the debt-to-income ratios. Childcare costs are no longer to be considered in the computation of the debt-to-income ratio, except for court-ordered or voluntary child support payments.
- Borrowers who have saved cash at home and are able to adequately demonstrate the ability to do so are permitted to have this money included as an acceptable source of funds to close the mortgages.
- HUD permits, under most circumstances, a "three repository merged credit report" (TRMCR) rather than a Residential Mortgage Credit Report (RMCR).

While these modifications enabled many households to become homeowners, this loosening of the underwriting rules also lead to an increase in FHA claim rates.

## 2. Underwriting Adjustable Rate Mortgages and Homeownership Counseling

Several changes were made in 1998 in the underwriting of adjustable rate mortgages (ARMs) and homeownership counseling. The policy revisions addressed the high losses that FHA was experiencing. Based on FHA's study of ARM claim rates, it was necessary to change the credit policy to maintain actuarial soundness. Borrowers must now qualify using the mortgage payment based on the maximum second year interest rate. This applies to all mortgages with loan-to-value (LTV) equal to or greater than 95 percent. Also, any form of temporary interest rate buydown for adjustable rate mortgages is no longer acceptable.

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Another focus of the revisions was on homeownership counseling. In the past, FHA had provided funding for approved homeownership counseling for the benefit of borrowers. However, unacceptable practices such as borrowers simply being asked to complete homeownership workbooks without any additional interaction with the counseling program were observed. The new rule requires that the type of homeownership counseling obtained by the first-time homebuyer must be examined by FHA's quality assurance staff as part of its regular reviews of the lenders. FHA required that counseling be delivered in a classroom setting, face-to-face, or via electronic media and involve 15 to 20 hours of instruction. Other counseling programs accepted by either Freddie Mac or Fannie Mae also meet this requirement.

# 3. Automated Underwriting Systems

In 1998, FHA announced that it approved Freddie Mac's Loan Prospector (LP) for the use in underwriting FHA insured mortgages. At the same time, FHA made a substantial number of revisions to its credit policies and reduced documentation requirements for LP-assessed loans, as described in the LP User's Guide. This is the first time that FHA incorporated automatic underwriting systems (AUSs) in its loan approval process. A year later, in 1999, Fannie Mae's Desktop Underwriter (DU) and PMI Mortgage Services' pmiAURA automated underwriting systems were also approved to underwrite FHA mortgages.

## 4. Further Reduction in Upfront Mortgage Insurance Premiums

In 2000, in recognition of the continued strength and increase in the MMI Fund, FHA revised its Upfront Mortgage Insurance Premiums (UFMIP) policy for all loans closed on or after January 1, 2001. The new UFMIP is 1.50 percent and the borrower does not have to be a first-time homebuyer or to have received homeownership counseling. The eligibility for UFMIP refunds has been shortened to five years for loans endorsed prior to December 8, 2004, and eliminated for loans endorsed after this date except for borrowers who refinance with a new FHA insured mortgage. In the latter case, the refund eligibility expires after 3 years.

In the past, some FHA borrowers needed to pay annual mortgage insurance premiums throughout the life of the mortgage. The new rule specifies that annual mortgage insurance premiums will be automatically canceled for all loans closed on or after January 1, 2001 under the following conditions:

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- For mortgages with terms of more than 15 years, the annual mortgage insurance premiums will be canceled when the loan-to-value ratio reaches 78 percent. The mortgagor has to pay the annual mortgage insurance premiums for at least five years.
- For mortgages with terms equal or less than 15 years and a loan-to-value ratio of 90 percent or greater, the annual mortgage insurance premiums will be canceled when the loan-to-value ratio reaches 78 percent, regardless of the length of time the mortgagor has paid the annual mortgage premiums.
- For mortgages with terms equal to or less than 15 years and a loan-to-value ratio of 89.9 percent and less will not be charged annual mortgage insurance premiums.

# 5. Increase in FHA's Single-Family Loan Limits

In late December 2004, HUD announced that it would raise FHA's single-family loan limit. The new mortgage limits ("the floor") will be \$172,632 and the new ceilings for high cost areas are \$312,895.\(^1\) The nationwide mortgage limits are \$220,992, \$267,120, and \$331,968 for two, three, and four-units mortgage loans. The statutory ceilings of two, three, and four-unit mortgage loans for high cost areas are \$400,548, \$484,155, and \$601,692, respectively. The increase in loan limit is the result of increases in Fannie Mae and Freddie Mac conforming mortgage loan limits. This change was effective starting January 1, 2005.

#### C. Current and Future Market Environment

## 1. Interest Rates

According to the Federal Reserve Bank statistics, three-month interest rates on short-term Treasury securities increased through FY 2005. The one-year Treasury rate rose from 2.09 percent on June 30, 2004 to 3.36 percent on June 30, 2005. The ten-year treasury rate, however, declined from 4.62 percent on June 30, 2004 to 4.36 percent on June 30, 2005. Mortgage interest rates also dropped slightly. The average conventional 30-year fixed-rate mortgage commitment rate posted by Freddie Mac decreased from 6.13 percent to 6.02 percent between the second quarter of 2004 and the second quarter of 2005.

<sup>1</sup>The new loan limit is still subject to the 95 percent of area median house price rule, thus continuing to cause the FHA population to consist of below-median-priced homes.

Consistent with this rising trend, Global Insight, Inc. also forecasted interest rates to rise rapidly during the next few years. By the end of the projection period of this review, FY 2012, the one-year Treasury rate is expected to rise to a stable level of 5.35 percent. Due to the observed rate increases during the last year, the MMI Fund origination volume during FY 2005 is now estimated to be 40 percent lower than was forecasted in the FY 2004 review. This substantial reduction in the forecasted future books of business is consistent with the current trend of FHA's market share. FHA's market share continued to decrease from 12.18 percent in FY 2002 to an estimated 3.77 percent in FY 2005.

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With the rising interest rate trend expected to continue over the next few years, future refinance origination volume will remain low. The smaller origination volume for new books will lead to slower growth in the insurance in force of the MMI Fund. On the other hand, the associated slower prepayment rates in FRMs make the insurance in force of the existing portfolio decrease more slowly, leaving more loans subject to claim risk for a longer time period. As for ARMs, rising interest rates mean higher payment levels in the next few years. Should the borrower's income not increase as rapidly as the mortgage payments, more ability-to-pay-related claims could be observed.

## 2. House Price Growth Rate

Projections of future home price growth rate are obtained from the Global Insight May 2005 long-range forecast. Generally, annual growth rates in house prices are projected to stay high for the second and third quarter of FY 2005, but start to drop quickly to 3 percent by the end of FY 2005, and remain below 4 percent throughout FY 2008 before rising back to a stable 4.2 percent growth rate by FY 2015. The slower growth rate in housing prices implies a deceleration of economic growth for the fiscal years 2005 through 2008. This represents a temporary slowdown in the housing market and affects the strength of the MMI Fund in the projected future.

Section II presents the impacts of these forecasts in greater detail and Section V provides an analysis of the fund's sensitivity to changes in specific economic variables.

### D. Higher Concentration of Loans with Gift Letters in Newer Books

One noticeable trend revealed in this year's data extract is the rapidly rising concentration of loans with gift letters in the newer books of business. FHA's data warehouse started tracking loans with gift letters in FY 1998. FHA allows a borrower to use outright gifts of cash as downpayment assistance. Eligible sources of cash gift include the borrower's relative, employer or labor union, a charitable organization, a governmental agency, a public entity that has a program to provide homeownership assistance to low- and moderate-income families or first-

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time home buyers, or a close friend with a clearly defined and documented interest in the borrower. Our current analysis indicates that these gift loans perform worse than their counterparts across all origination years and all exposure years. For the first time, we incorporated this gift effect into the Annual Review, and it weakens the projected performance of the MMIF over the foreseeable future.

# E. Data Sources and Future Projections

The estimates presented in this Review require projections of events more than 30 years into the future. These projections are dependent upon a number of assumptions, including economic forecasts by Global Insight, Inc. and the assumption that FHA does not change its refund and premium policies. Since the assumptions may not be accurate, the actual results will vary, perhaps significantly, from our current projections.

Furthermore, we based our analysis on FHA historical data through March 31, 2005. While we have reviewed the integrity and consistency of these data and believe them to be reliable, we have not audited them for accuracy. The information contained in this Review may not correspond exactly with other published analyses that rely on FHA data compiled at a different time or obtained from other data sources.

## F. Structure of this Report

The remainder of this report is divided into the following sections:

**Section II. Summary of Findings and Comparison with FY 2005 Actuarial Review** – presents the Fund's estimated economic value, capital ratio, and insurance-in-force for FY 2005 through FY 2012. This section also provides a reconciliation and explanation of the major differences between the FY 2004 Review and the FY 2005 Review.

**Section III. Current Status of the Fund** – presents the estimated economic value and capital ratio for the Fund for the end of FY 2005 and provides an analysis of the performance of the books of business from FY 1976 through FY 2005.

**Section IV. Characteristics of the FY 2005 Book of Business** – describes the FY 2005 book of business and compares the risk characteristics of the current book to previous books.

**Section V. MMI Fund Sensitivities** – presents sensitivity analyses of the MMI Fund using alternative economic assumptions and loan characteristics.

**Section VI. Summary of Methodology** – presents an overview of the econometric and cash flow models used for the review.

**Section VII. Considerations and Limitations** – describes the main assumptions and the limitations of the data and models relevant to the results presented in this review.

**Section VIII. Conclusions** – provides a summary of the report's results and the conclusions that can be drawn from those results.

**Appendix A. Econometric Analysis of Mortgages** – provides a technical description of our econometric model for individual mortgage product types.

**Appendix B. Cash Flow Analysis** – provides a technical description of our cash flow model.

**Appendix C. Data for Loan Performance Simulation** – explains the algorithms used in transforming the raw data into the data used to simulate future mortgage performance.

**Appendix D. Economic Forecasts** – describes the forecast of future economic factors that affect the performance of the Fund and the alternative economic scenarios associated with various sensitivity analyses.

**Appendix E. Econometric Results** – presents claim and prepayment rates estimated from the econometric model.